UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,073	05/09/2005	Dirk Mensing	17346-0016	1885

29052 7590 02/26/2008
SUTHERLAND ASBILL & BRENNAN LLP
999 PEACHTREE STREET, N.E.
ATLANTA, GA 30309

EXAMINER	
SAINT CYR, JEAN D	

ART UNIT	PAPER NUMBER
2623	

MAIL DATE	DELIVERY MODE
02/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/529,073	MENSING, DIRK	
	Examiner	Art Unit	
	Jean D. Saintcyr	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 05/09/2005 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-11, filed 05/09/2005, are presented for examination.

Claims Objections

Claims 1 and 7 have terms "first type, second type" that did not mention anywhere in the specification:

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

3. Claims 1-11are rejected under 35 U.S.C. 102(e) as being anticipated by Rodriguez et al, US Patent No. 20030005447.

Re claim 1, Rodriguez et al disclose a method for bidirectional transmission of electronic data(a method for accessing a plurality of bi-directional services over a cable network is described, comprising presenting a program guide to at least one subscriber, 0007) in a television data cable network(over a cable television network, 0010)having segments(The HFC access network 17 typically comprises a plurality of HFC nodes 13, each of which may serve a local geographical area, 0044; see fig.1, element 13, node) which each comprise two or more user interfaces(it should be appreciated that a plurality of cable television systems can tie together a plurality of regional networks into

an integrated global network so that DHCT users can receive content or services from anywhere in the world, 0040; see fig.1, element 16, DHCT), with each of the segments being connected via a cable connection to a feed point(The hub 12 connects to the HFC node 13 through a fiber portion of the HFC access network 17, 0044; see fig.1, element 12, HUB) for the television data cable network(a cable television network,0016) and with the method comprising the following steps(any process descriptions or blocks in flow charts should be understood as representing modules, segments, or portions of code which include one or more executable instructions for implementing specific logical functions or steps in the process, 0160);

downlink transmission of electronic data from the feed point to at least some of the user interfaces of one or of all of the segments via the cable connection(downstream transmission to the DHCTs 16,0113),
in which requested (receiving a request from the first subscriber for one of the displayed bi-directional services, 0010) electronic data is fed into the cable connection as digital downlink data via the feed point and is transmitted from the feed point(feeds the data via the BFS from the headend 11 for downstream transmission to the DHCTs 16,0113) to a processing device(central processing unit, 0070; see fig.4, element 444, processor) which is connected downstream from the feed point in the cable connection, of a first type;

from the digital downlink data(FIG. 2 include broadcast digital transmission channels 220, carousel digital transmission channels 230, 0048) in the processing device of the first type, local electronic data(an electronic program guide (EPG) is necessary to facilitate searching for programs, 0005) is produced for distribution (for producing and transmitting data streams throughout the CTS 10, and which provides an efficient method for delivery of application executables and data and service data to the DHCT 16, 0049) o at least one user interface in a local segment which is coupled to the processing device(central processing unit, 0070; see fig.4, element 444, processor) of

the first type, and electronic downlink remote data(Media or data from the remote location may comprise live video, audio, graphics, and/or text and be transmitted respectively as an MPEG-2 video and audio program to the subscriber, 0062) is produced for transmission in a downlink radio-frequency band(radio frequency , RF, 0044) in an upper cut-off area of a transmission bandwidth of the cable connection; the local electronic data is transmitted in a downlink frequency band within the transmission bandwidth of the cable connection, which is formed below the downlink radio-frequency band(Typically, a subscriber network television system using HFC supports downstream , i.e. in the direction from the headend 11 to the DHCT 16, frequencies from 50 MHz to 870 MHz, whereas upstream frequencies , i.e. in the direction from the DHCT 16 to higher levels of the system, are in the 5 MHz to 42 MHz band. Generally, the RF channel bandwidth spacing for analog and digital services is 6 MHz, 0046; that means the upper cut-off frequency is included in that range of frequency);

the electronic downlink remote data(Media or data from the remote location may comprise live video, audio, graphics, and/or text and be transmitted respectively as an MPEG-2 video and audio program to the subscriber, 0062) is fed into the downlink radio-frequency band (radio frequency , RF, 0044) of the cable connection by means of the processing device(central processing unit, 0070; see fig.4, element 444, processor) of the first type, and is transmitted via the cable connection to a further processing device of the first type(physical connection from a router 372 or bi-directional gateway 380 to the BC server 322, and the connectivity from the BC server 322 to the QAM 324 to the Hub 12 in which the DHCT 16 is connected, 0107); and

the electronic downlink remote data (Media or data from the remote location may comprise live video, audio, graphics, and/or text and be transmitted respectively as an MPEG-2 video and audio program to the subscriber, 0062) is converted in the further processing device(central processing unit, 0070; see fig.4, element 444, processor) of

the first type to further local electronic data for distribution to at least one user interface in a further local segment(for distribution to the various DHCTs 16 in the network 18, 0060) which is coupled to the further processing device of the first type;

uplink transmission of electronic data from at least one of the user interfaces of one or all of the segments to the feed point via the cable connection(see fig.2, upstream OOB; the OOB coupled with an upstream transmitter enable the DHCT 16 to interface with the network so that the DHCT 16 can provide upstream data to the network, for example via the QPSK or QAM channels. This allows a subscriber to interact with the network to request BSPG services and, if necessary, encryption can be added to the OOB channels to provide privacy, 0066; both components are in communication with the subscriber network television system so that upstream transmissions can be received by the system during a bi-directional communication service, 0091) in which,

- electronically recorded user data is fed into the cable connection via the at least one user interface(the BSPG client application 477 configures the processor 444 to cause BSPG purchase transactions to be stored in the FLASH memory 451 part of system memory 449 or in some other designated nonvolatile memory section of DHCT 16 as purchase transactions occur. BSPG transaction records and associated fees are transmitted upstream via the OOB upstream channel at designated scheduled times ,e.g., during low bandwidth consumption periods, to the billing system 320. Alternatively, the BSPG application server 319, under the direction of the billing system 320, may periodically poll individual DHCTs 16 or group of DHCTs to collect their respective BSPG transaction history. BSPG transaction records received from subscriber's DHCT 16 by the BSPG application server 319 are debited from subscriber's respective account by the billing system 320, 0101; that means recorded

data of the users that was stored in the flash memory was sent to the headend via upstream communication interface);

electronic uplink remote data is produced from the electronically recorded user data in the further processing device of the first type, which is connected upstream of the at least one user interface in the cable connection(see fig.2, where DHCT is connected to the headend via upstream OOB; the OOB coupled with an upstream transmitter enable the DHCT 16 to interface with the network so that the DHCT 16 can provide upstream data to the network, for example via the QPSK or QAM channels, 0066);

the electronic uplink remote data is fed into an uplink radio-frequency band in the upper cut-off area of the transmission bandwidth(whereas upstream frequencies (i.e. in the direction from the DHCT 16 to higher levels of the system) are in the 5 MHz to 42 MHz band, 0046) of the cable connection by means of the further processing device of the first type, and is transmitted via the cable connection to the processing device of the first type; and the electronic uplink remote data is converted in the processing device of the first type to digital uplink data, and is transmitted via the cable connection to the feed point(The OOB tuner and upstream transmitter 547 enable the DHCT 16 to interface with a subscriber network television system so that the DHCT 16 can provide upstream data to the network, for example, via a QPSK channel that serves as an upstream OOB channel ,see FIG. 2, and received by a QPSK receiver in QPSK modem 326 in headend 11, 0091;).

Re claim 2, Rodriguez et al disclose characterized in that the downlink radio-frequency band and the uplink radio-frequency band are adjacent frequency bands(Typically, a subscriber network television system using HFC supports downstream (i.e. in the direction from the headend 11 to the DHCT 16) frequencies from 50 MHz to 870 MHz, whereas upstream frequencies ,i.e. in the direction from the DHCT 16 to higher levels of the system, are in the 5 MHz to 42 MHz band, 0046; these two

ranges of frequency prove that downlink radio-frequency band and uplink radio - frequency band are adjacent).

Re claim 3, Rodriguez et al disclose characterized in that the upper cut-off frequency of the transmission bandwidth of the cable connection is used as the upper cut-off frequency for the uplink radio-frequency band(whereas upstream frequencies (i.e. in the direction from the DHCT 16 to higher levels of the system) are in the 5 MHz to 42 MHz band, 0046; that means including cut-off frequency).

Re claim 4, Rodriguez et al disclose characterized in that the downlink radio-frequency band and the uplink radio- frequency band are formed above a frequency of about 470 MHz(a subscriber network television system using HFC supports downstream , i.e. in the direction from the headend 11 to the DHCT 16, frequencies from 50 MHz to 870 MHz; that means including 470 MHz).

Re claim 5, Rodriguez et al disclose characterized in that the local electronic data is transmitted to the at least one user interface in the local segment, and the further local electronic data is transmitted to the at least one user interface in the further local segment in accordance with a DOCSIS Standard , DOCSIS - "Data Over Cable Service Interface Specification", the IEEE 802.3 or the IEEE 802.11(see fig.5, element 442, communication interface; IEEE-1394, 0082).

Re claim 6, Rodriguez et al disclose characterized in that a cable modem or an adaptor device is in each case used in the user interface(see fig.3, element 326, QPSK MODEM; the quadrature phase shift keying (QPSK) modem 326 is responsible for transporting the out-of-band IP , Internet protocol, datagram traffic between the distribution headend 11 and a DHCT 16. Data from the QPSK modem 326 is routed by headend router 327 within the headend 11. The headend router 327 is also responsible

for delivering upstream application traffic, such as a user's requests for a BC service, to the various application servers, 0064).

Re claim 7, Rodriguez et al disclose characterized in that the electronic downlink remote data(Media or data from the remote location may comprise live video, audio, graphics, and/or text and be transmitted respectively as an MPEG-2 video and audio program to the subscriber, 0062) is amplified during the transmission in the downlink radio-frequency band (Coaxial cables are typically used to couple nodes 13, taps 14 and NIUs 15 because the electrical signals can be easily repeated with radio frequency amplifiers, 0044; that means the signal is repeatedly amplified to avoid loss of data) of the cable connection between the processing device of the first type and the further processing device (central processing unit, 0070; see fig.4, element 444, processor)of the first type, and/or the electronic uplink remote data is amplified during the transmission in the uplink radio-frequency band of the cable connection between the further processing device of the first type and the processing device of the first type, by means of a processing device of a second type, which is connected between the processing device of the first type and the further processing device of the first type, with the processing device of the second type also transmitting the local electronic data and/or the further electronic data in the downlink and uplink directions(see fig.3, element 326, MODEM; that means the MODEM processes data in both direction).

Re claim 8, Rodriguez et al an apparatus for use for a method for bidirectional (method for accessing a plurality of bi-directional services over a cable network is described, comprising presenting a program guide to at least one subscriber, , 0007) transmission of electronic data in a television data cable network(over a cable television network, 0010) having segments which each comprise two or more user interfaces(The HFC access network 17 typically comprises a plurality of HFC nodes 13, each of which may serve a local geographical area, 0044; see fig.1, element 13, node), with each of the segments being connected via a cable connection to a feed point(The hub 12

connects to the HFC node 13 through a fiber portion of the HFC access network 17, 0044; see fig.1, element 12, HUB)for the television data cable network(a cable television network,0016), having:

a processing module for processing digital uplink data having(see fig.4, element 444, processor; central processing unit, 0070; the same process applies in reverse and DHCT 16 can, for example, digitize and compress pictures from a camera for upstream transmission,0068; that means uplink transmission):

output means for outputting digital downlink data from the cable connection(see fig.4, element 448, output system; including a video output port such as an RF output system 448 for driving the display 441, 0065) , which is fed into the cable connection via a feed point(see fig.1, element 12, HUB);

receiving means for reception in of the output, digital downlink data from the output means(see fig.4, element 441, television receiver; the DHCT 16 preferably comprises a communications interface 442 for receiving the RF signal, 0065);

demodulation means, which are connected downstream from the receiving means, for demodulation of the output, digital downlink data(see fig.5, QAM demodulator; The DHCT 16 includes a demultiplexing system 543 comprising functionality for QAM demodulation,0094)

a central control device(see fig.3, element 323, digital network control; a digital network control system , DNCS 323, via an Ethernet connection, 0051) , which has production means for production of electronic downlink remote data(Media or data from the remote location may comprise live video, audio, graphics, and/or text and be transmitted respectively as an MPEG-2 video and audio program to the subscriber, 0062) from the demodulator(see fig.5, QAM demodulator; The DHCT 16 includes a demultiplexing

system 543 comprising functionality for QAM demodulation,0094), output, digital downlink data for transmission in a downlink radio-frequency band in an upper cut-off area of a transmission bandwidth of the cable connection(Typically, a subscriber network television system using HFC supports downstream , i.e. in the direction from the headend 11 to the DHCT 16, frequencies from 50 MHz to 870 MHz, 0046; that means upper cut-off is included in that range); modulation means for modulation of the electronic downlink remote data for the downlink radio-frequency band(The BC servers 322 deliver MPEG-2 content to a group of QAM modulators 324, 0062); and input means for inputting the modulated electronic downlink remote data into the downlink radio-frequency band of the cable connection(FIG. 2 shows the transmission channels supported by the CTS 10 illustrated in FIG. 1, as delivered by the headend 11 and received as input channels by the DHCT 16, 0046); and
a further processing module for processing electronically recorded user data(stored in the FLASH memory 451 part of system memory 449 or in some other designated nonvolatile memory section of DHCT 16 as purchase transactions, 0101), having:

further output means for outputting electronically recorded user data from the cable connection, which is fed via at least one user interface into the cable connection(see fig.4, element 442, communication interface);

further receiving for reception of the output, electronically recorded user data from the further output means(transmission back to the headend 11, 0065; see fig.5, connection among element 11, 18 and 448)

further demodulation means, which are connected downstream from the further receiving means, for demodulation of the output and the received electronically recorded user data(see fig.5, QAM demodulator; The DHCT 16 includes a demultiplexing system 543 comprising functionality for QAM demodulation,0094);

further production means(The carousel DTCs 230 typically carry data formatted in directories and files by a Broadcast File System ,BFS, which is used for producing and transmitting data streams throughout the CTS 10, and which provides an efficient method for delivery of application executables and data and service data to the DHCT 16, 0049) which are formed by the central control device(see fig.3, element 323, digital network control; a digital network control system , DNCS 323, via an Ethernet connection, 0051), for production of electronic uplink remote data from the demodulated(Media or data from the remote location may comprise live video, audio, graphics, and/or text and be transmitted respectively as an MPEG-2 video and audio program to the subscriber, 0062), output, electronically recorded user data for transmission in an uplink radio-frequency band in the upper cut-off area of the transmission bandwidth of the cable connection(Typically, a subscriber network television system using HFC supports downstream , i.e. in the direction from the headend 11 to the DHCT 16, frequencies from 50 MHz to 870 MHz, 0046; that means upper cut-off is included in that range);

further modulation means for modulation of the electronic uplink remote data for the uplink radio-frequency band(see fig.3, element 324, QAM modulator); and

further input means for inputting the modulated electronic uplink remote data into the uplink radiofrequency band for the cable connection(transmission back to the headend 11, 0065; see fig.5, connection among element 11, 18 and 448 where output data from communication interface is inputting in the headend).

Re claim 9, Rodriguez et al disclose characterized by an interface device(see fig.3, element 16, DHCT) which is coupled to the central control device(see fig.3, element 323, digital network control) for transmission of local electronic data, which is

produced with the aid of the central control device, in a downlink frequency band of the transmission bandwidth of the cable connection, which is formed below the downlink radio-frequency band(Typically, a subscriber network television system using HFC supports downstream , i.e. in the direction from the headend 11 to the DHCT 16, frequencies from 50 MHz to 870 MHz, 0046).

Re claim 10, Rodriguez et al disclose characterized by a radio interface device, which is coupled to the central control device, for transmission of local electronic data, which is produced with the aid of the central control device, via a radio link (External communication interfaces include router 372, satellite receiver 374, a satellite transceiver 276, a terrestrial receiver or antenna, 0053; that means radio link).

Re claim 11, Rodriguez et al disclose characterized by amplification means for amplification (Coaxial cables are typically used to couple nodes 13, taps 14 and NIUs 15 because the electrical signals can be easily repeated with radio frequency amplifiers, 0044; that means the signal is repeatedly amplified to avoid loss of data)of the electronic downlink remote data for the downlink radio-frequency band, and/or of the electronic uplink remote data for the uplink radio-frequency band(Typically, a subscriber network television system using HFC supports downstream (i.e. in the direction from the headend 11 to the DHCT 16) frequencies from 50 MHz to 870 MHz, whereas upstream frequencies ,i.e. in the direction from the DHCT 16 to higher levels of the system, are in the 5 MHz to 42 MHz band, 0046).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsutsui et al (US. Pat. 6100917) disclose bidirectional cable television system, cable television distribution device and processing terminal device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST.If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reach on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see htpp://pair-direct.uspto.gov. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199(IN USA OR CANADA) or 571-272-1000.

Jean Duclos Saintcyr
02/11/2008

Brian Pendleton
Supervisor Patent Examiner